

2009 Consumer Confidence Report

City of Winchester Public Utilities

**Este informe contiene información muy importante sobre su agua potable.
Tradúzcalo o hable con alguien que lo entienda bien.**

It is Safe

Our tap water, provided by Winchester Public Utilities, is safe to drink and is of higher quality than required by all state and federal standards for drinking water. This same water is in compliance with all required water quality monitoring and reporting. The Safe Drinking Water Act (SDWA) has been the primary regulation to ensure that public health and safety is protected in drinking water supplies. Although this information has been available to anyone requesting it, this water quality report, part of the provisions of the Safe Water Drinking Act Amendments of 1996, is intended to share with you how well we are doing.

Every employee of Winchester Public Utilities is committed to producing drinking water that is of the highest quality. Our state-certified laboratory, located at the Percy D. Miller Water Treatment Plant, continuously analyzes water quality throughout the treatment process to ensure superior quality drinking water is delivered to our customers.

It is Reliable

Your drinking water is surface water obtained from the North Fork of the Shenandoah River. This river supplies the City of Winchester with its daily water requirement, of an average of 6.49 million gallons per day for 2009. The treatment plant has been in operation since 1954 and has been upgraded as required to meet new regulations and water demands. The water goes through a six-step process before it becomes finished water and is pumped through 125 miles of pipe to you, our customer.

Winchester Public Utilities operates 24 hours per day, seven days per week to produce a reliable supply of superior quality drinking water, as well as to ensure sufficient water quantity, customer satisfaction and environmental integrity of our source water. Should you have any questions or concerns please contact us at **540-667-1815** or **540-869-1699**.

Source water Assessments.

Source water assessments for the City of Winchester were completed by the VDH on April and September 10, 2002. These assessments determined that the city's primary water source, North Fork Shenandoah River, may be susceptible to contamination because it is a surface water exposed to varying concentrations and changing hydrologic, hydraulic, and atmospheric conditions that promote migration of contaminants from land use activities of concern within its

assessment area. More specific information may be obtained by contacting 540-667-1815.

What we are doing

Currently, the Percy D. Miller water plant is undergoing a major upgrade to the entire treatment facility. These upgrades include improvements to the chemical feed systems, disinfection process, sludge handling capabilities; raw water and high service pump capabilities, operational monitoring and overall facility improvements. As a part of this project, nearly all the original equipment that was installed when the plant was first constructed in 1955 is being replaced.

The City is continuing the process of replacing some of the oldest water mains within the United States. Beginning later this year, the City will begin the Highland Avenue-Fremont Street project to replace water mains, improve wastewater collections system and replace curbs and sidewalks. During the past two years, the City has replaced over 4 miles of old water mains within the City.

Drinking Water & Your Health

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ, transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers.

Cryptosporidium is a microbial pathogen found in surface waters throughout the United States. Ingestion of Cryptosporidium may cause cryptosporidiosis, an abdominal infection characterized by nausea, diarrhea, and abdominal cramps. Cryptosporidium may be spread through means other than drinking water. Most healthy individuals can overcome the disease within a few weeks; however immuno-compromised people are at risk of developing a potentially life-threatening illness. In 2009, the City of Winchester Public Utilities collected monthly samples to determine the occurrence of Cryptosporidium in the raw water source for the Percy D. Miller water Treatment plant. Results of monitoring during this time period have shown no presence of Cryptosporidium in the source water. Public Utilities will continue to make every effort to optimize the filtration and disinfection unit processes at the Percy D. Miller water treatment plant to ensure the greatest degree of Cryptosporidium removal/inactivation should any be detected. EPA/CDC guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbiological contaminants are available from the Safe Drinking Water Hotline (800-426-4791).

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring

minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity. Contaminants that may be present in source water include:

- (1) Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- (2) Inorganic contaminants, such as salts and metals, which can be naturally occurring or result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.
- (3) Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses.
- (4) Organic chemical contaminants, including synthetic and volatile organic chemicals, which are byproducts of industrial processes and petroleum production and can also, come from gas stations, urban stormwater runoff, and septic systems.
- (5) Radioactive contaminants, which can be naturally occurring or be the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, EPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. Food and Drug Administration regulations establish limits for contaminants in bottled water, which must provide the same protection for public health.

The following table lists only those substances that had some level of detection. All of the results in the table were from testing done during 2009. However, the State Health Department allows us to monitor for some substances less than once per year because their concentrations do not change frequently. Some of our data, although accurate, is over one year old. Over 100 substances were sampled for, but were either not present or below the detection levels. All drinking water, including bottled water, may reasonably be expected to contain small amounts of some substances. The presence of contaminants does not necessarily indicate that the water presents a health risk. More information about contaminants and potential health effects can be obtained by calling the United States Environmental Protection Agency's Safe Drinking Water Hotline at (800) 426-4791. You may also contact the Virginia Department of Health, Office of Water Programs, at (540) 463-7136.

Turbidity

Contaminant	MCLG	MCL	Highest Single Level Found	Unit Measurement	Lowest Monthly %<0.3 NTU	Violation	Sample Date	Typical Source of Contamination
Turbidity (1)	NA	TT	0.10	NTU	100	NO	05/18/09	Soil Runoff

- (1) Turbidity is a measure of the cloudiness of the water. We monitor it because it is a good indicator of water quality and the effectiveness of our filtration and disinfection process.

Total Organic Carbon

Contaminant	MCLG	MCL	Level Found	Unit Measurement	Violation	Sample Date	Typical Source of Contamination
Total Organic Carbon (2)	NA	TT	2.14 Yearly Avg. 1.00 – 3.78 Range	Ratio of Actual to Required Removals	NO	12/2009	Naturally Present in Environment

- (2) Total Organic Carbon (TOC) has no health effects but provides formation medium for disinfection by-products. These by-products include Trihalomethanes (TTHM) and Haloacetic acids (HAA5).

Inorganic Contaminants

Contaminant	MCLG	MCL	Level Found	Unit Measurement	Violation	Sample Date	Typical Source of Contamination
Nitrates	10	10	1.53	Mg/l	NO	02/06/2009	Runoff from fertilizer use; leaching from septic tanks, sewage; Erosion of natural deposits
Fluoride	4	4	Avg. 95 Range 0.60 – 1.40	Mg/l	NO	12/2009	Erosion of natural deposits; deposits; Discharge from fertilizer and aluminum factories; Water additive, which promotes strong teeth.

Disinfectant and Disinfection Byproduct Contaminants

Contaminant	MCLG	MCL	Level Found	Unit Measurement	Violation	Sample Date	Typical Source of Contamination
Total Trihalomethanes (TTHM)	0	80	Avg. 23.23 Range 4.2 - 106	Ppb	NO	12/2009	By-product of water chlorination
Halo Acetic Acids (HAA5)	0	60	Avg. 23.06 Range 7-67	Ppb	NO	12/2009	By-product of water chlorination
Contaminant	MRDLG		MRDL	Level Found	Unit Measurement	Violation	Sample Date
Residual Chlorine	4		4	Avg. 2.31 Range ND* –	Mg/l	NO	Monthly

			3.6			
--	--	--	-----	--	--	--

Lead and Copper

Contaminant	MCLG	MCL	Level Found	Unit Measurement	AL Exceeded	Samples >AL	Sample Date	Typical Source of Contamination
Lead Copper	0 1.3	AL=15 AL=1.3	2.90 0.445	Ppb Mg/l	NO NO	1 0	06/2009	Corrosion of household plumbing systems; Erosion of natural deposits

*ND = Non-Detectable

Definitions

MCL – Maximum Contaminant Level – Highest level of contaminant level allowed in drinking water

MCLG - Maximum Contaminant Level Goal – The level of a contaminant in drinking water below which there is no known or expected health risk.

NTU – Nephelometric Turbidity Unit – A measure of water clarity.

PCi/L – Picocuries per liter – A measure of radioactivity in water

Mg/l – Milligrams per liter – One milligram per liter corresponds to 1 drop in 16 gallons water. (one milligram per liter is the same as one part per million parts)

Ppb – Parts per billion – Parts per billion – One part per billion corresponds to 1 drop in 15, 750 gallons.

AL – Action Level – The concentration of a contaminant that triggers treatment or other requirements which a water system must follow.

TT – Treatment Technique – A required process intended to reduce the level of a contaminant in drinking water.

ND – Non-Detectable

No Coliform Bacteria Found

A minimum of forty different system samples from thirty different locations throughout the collection system were analyzed for Fecal Coliform and E. Coli bacteria each month. The results of these analyses found NO presence of either type of bacteria in any sample collected.

Lead and Copper

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. Winchester Public Utilities is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 15 to 30 seconds or until it becomes cold or reaches a steady temperature before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the United States Environmental Protection Agency's Safe Drinking Water Hotline at (800) 426-4791 or at <http://www.epa.gov/safewater/lead>.